

CLAIMS

What is claimed is:

- 1 1. A system for improving manufacturing yields, comprising:
 - 2 at least one manufacturing facility into which unprocessed parts enter;
 - 3 identification plan for said unprocessed parts, by which each unprocessed part is
 - 4 given unique and traceable unprocessed part identification data;
 - 5 processing equipment included in said at least one manufacturing facility by
 - 6 which said unprocessed parts are turned into processed parts;
 - 7 identification plan for said processing equipment by which each piece of
 - 8 equipment is given unique and traceable processing equipment identification data;
 - 9 identification plan for said processed parts, by which each processed part is given
 - 10 unique and traceable processed part identification data and which is relatable to said
 - 11 unprocessed part identification data and said processing equipment identification data;
 - 12 at least one computer terminal connected to a database into which said
 - 13 unprocessed parts identification data, said processed parts identification data and said
 - 14 processing equipment identification data is stored, and related, and which said data is
 - 15 retrievable to allow processed parts with defects to be traced to the processing equipment
 - 16 by which it was processed for repair or modification of said processing equipment.
- 1 2. The system of claim 1, wherein:
 - 2 said identification plan for unprocessed parts is achieved by assigning numbers to
 - 3 batches of parts and further assigning data related to positions within said batch of parts.

1 3. The system of claim 1, further comprising:
2 testing equipment by which testing of said processed parts can be conducted.

1 4. The system of claim 1, wherein:
2 said database is accessible from multiple computer terminals.

1 5. The system of claim 4, wherein:
2 said multiple computer terminals are connected by the Internet.

1 6. The system of claim 4, wherein:
2 said multiple computer terminals are connected by an intranet.

1 7. The system of claim 1, wherein:
2 said processing equipment is located in more than one manufacturing facility.

1 8. The system of claim 3, wherein:
2 said testing of said processed parts is done in a separate manufacturing facility
3 from the one in which at least one of said at least one processing stage is performed.

1 9. The system of claim 3, wherein:
2 said testing of said processed parts includes shipping finished manufactured
3 products to consumers and monitoring field problems.

1 10. The system of claim 1, further comprising:

2 a plan for addressing problems which are identified during the manufacturing
3 process, said plan including Problem identification, through customer communication
4 and performance monitoring, Analysis, to determine the source of the problem, Action,
5 including efforts by manufacturing and engineering departments to solve the problem,
6 and Result, in which improvement to the yield is confirmed.

1 11. The system of claim 10, wherein:

2 said Problem identification of said processed parts includes shipping finished
3 manufactured products to consumers, monitoring field problems and inspecting returned
4 products.

1 12. The system of claim 10, wherein:

2 said Analysis includes tracing parts downstream to monitor performance of parts
3 from a processing machine which is suspected of having problems.

1 13. The system of claim 10, wherein:

2 said Analysis includes tracing parts upstream to correct performance of a
3 processing machine which is suspected of causing problems.

1 14. The system of claim 10, wherein:

2 said Analysis includes sending ahead parts from a main batch to test performance
3 of the main batch.

1 15. A system for improving manufacturing yields for HDDs, comprising:
2 at least one manufacturing facility into which unprocessed disks enter;
3 identification plan for said unprocessed disks, by which each unprocessed part is
4 given unique and traceable unprocessed part identification data;
5 processing equipment included in said manufacturing facility by which said
6 unprocessed disks are turned into HDDs;
7 identification plan for said processing equipment by which each piece of
8 equipment is given unique and traceable identification data;
9 identification plan for said HDDs, by which each HDD is given unique and
10 traceable HDD identification data and which is relatable to said unprocessed disk
11 identification data;
12 at least one computer terminal connected to a database into which said
13 unprocessed disk identification data, said HDD identification data and said processing
14 equipment identification data is stored, and related, and which said data is retrievable to
15 allow HDDs with defects to be traced to equipment by which it was processed for repair
16 or modification of said equipment.

1 16. The system of claim 15, wherein:
2 said identification plan for unprocessed disks is achieved by assigning numbers to
3 batches of disks and further assigning data related to positions within said batch of disks.

1 17. The system of claim 15, further comprising:

2 testing equipment by which testing of said HDDs can be conducted.

1 18. The system of claim 15, wherein:

2 said database is accessible from multiple computer terminals.

1 19. The system of claim 18, wherein:

2 said multiple computer terminals are connected by the Internet.

1 20. The system of claim 18, wherein:

2 said multiple computer terminals are connected by an intranet.

1 21. The system of claim 15, wherein:

2 said processing equipment is located in more than one manufacturing facility.

1 22. The system of claim 17, wherein:

2 said testing of said HDDs is done in a separate manufacturing facility from the

3 one in which at least one of said at least one processing stage is performed.

1 23. The system of claim 17, wherein:

2 said testing of said HDDs includes shipping finished manufactured products to

3 consumers and monitoring field problems.

1 24. The system of claim 15, further comprising:

2 a plan for addressing problems which are identified during the manufacturing
3 process, said plan including Problem identification, through customer communication
4 and performance monitoring, Analysis, to determine the source of the problem, Action,
5 including efforts by manufacturing and engineering departments to solve the problem,
6 and Result, in which improvement to the yield is confirmed.

1 25. The system of claim 24, wherein:

2 said Problem identification of said HDDs includes shipping finished
3 manufactured products to consumers, monitoring field problems and inspecting returned
4 products.

1 26. The system of claim 24, wherein:

2 said Analysis includes tracing parts downstream to monitor performance of disks
3 from a processing machine which is suspected of having problems.

1 27. The system of claim 24, wherein:

2 said Analysis includes tracing disks upstream to correct performance of a
3 processing machine which is suspected of causing problems.

1 28. The system of claim 24, wherein:

2 said Analysis includes sending ahead disks from a main batch to test performance
3 of the main batch.